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10/589,503	08/15/2006	Masato Otsuka	OTSU3004/REF	9443

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BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER
TABOR, AMARE F

ART UNIT	PAPER NUMBER
2139	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
	10/589,503	OTSUKA ET AL.	
Office Action Summary	Examiner	Art Unit	
	Amare Tabor	2139	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 February 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) <u>1,4,5,7-9,12,13,15-17,19,20,24 and 25</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2, 3, 6, 10, 11, 14, 18 and 21-23</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>15 August 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08/15/06 & 09/07/06</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Applicant's election without traverse of Group I [Claims 2, 3, 6, 10, 11, 14, 18 and 21-23] in the

reply filed on February 20, 2008 is acknowledged.

2.   Accordingly, Claims 1, 4, 5, 7-9, 12, 13, 15-17, 19, 20, 24 and 25 are withdrawn from

consideration.

3.   Claims 2, 3, 6, 10, 11, 14, 18 and 21-23 are presented for examination.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3, 6, 10, 11, 14, 18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over "Mochizuki" (US 7,020,780 B1) in view of Wei et al (US 2006/0265752 A1), referred as "Wei"

hereinafter.

        As per Claim 2, Mochizuki teaches,

        An illegal copy finding system finding an illegal copy of an optical disc on which data and a BCA

code are recorded, comprising: a recording apparatus recording [see **REPRODUCTION APPARATUS**

104 in FIG.3] on the optical disc [see **OPTICAL DISC 100** in FIG.3] the BCA code constituted by a

plurality of marks [see **READ OUT disc ID S1** in FIG.4] and including a secret code [see **Write Cipher**

Key on disc S42 in FIG.7] which is modulated in accordance with a previously determined procedure in a

range capable of recognizing a position in a radial direction of the optical disc and/or a position in a track

direction of said plurality of marks as the BCA code [for example, col.5, line 55 to col.6, line 26, "*In*

the optical disc 100, two units of address information of an area are recorded, for instance, at a sector …

104 is arranged that it can reproduce a first scene of each software for example, however, it is impossible

to reproduce succeeding scenes of the software unless a cipher key is entered To record the disc ID,

*binary data which represents **the disc ID is recorded on an optical disc 100 as a bar code**, after*

recording information … laser beam which is modulated by binary data representing a disc ID is irradiated

*on an optical disc 100, as a …the first embodiment of the present invention, a **BCA (Burst Cutting Area)***

number** which is utilized in a DVD (Digital Video Disc) system is recorded as a disc ID. The **BCA area is

an area extending over plural tracks of inner most part of optically recorded area of an optical

***disc**, wherein a bar code is formed by a strong light …BCA number is a information proper to an*

individual optical disc out of all information written in a BCA area as a bar code…104 reads out the BCA

number and indicates the BCA number in decimal …"]; and

a management center [see **Software House 110** in FIG.3] reading the BCA code and the secret

code recorded on the optical disc [see **Read out disc ID S31/S51** in Fig.6/8] so as to compare see both

on the basis of an input of the correspondence between the BCA code and the secret code stored in said

BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22, "*FIG. 7*

*shows a process of **writing a cipher key which is transmitted from the software house 110 on the***

***optical disc 100** in the reproduction apparatus 104. When a reception of cipher key is confirmed (step*

S41), the cipher key is written in a predetermined area of the optical disc 100 (step S42… the

reproduction apparatus 104 also functions as a cipher key writing apparatus. An add-on writing area as a

part of BCA area is available for above mentioned predetermined area of an optical disc wherein a cipher

*key is written. The **add-on writing area of BCA area is a part of BCA area wherein a disc ID is***

***recorded** as a BCA number and the add-on writing area is continued to or adjoined to the area wherein a*

BCA number is recorded. An add-on writing area of a bar code which is continued in a circumference

direction to a recording area of a disc ID in a BCA area…" See also col.11, line 46 to col.12, line 35].

Mochizuki fails to teach a BCA history database storing a history including a correspondence

between the BCA code of the optical disc recording said BCA code and the secret code.

However, in the same field of endeavor, Wei teaches a BCA history database storing a history

[see **Read the disc ID 102 & Search for the disc ID 106** in FIG.3; and for example, par.0005,"… *one*

*embodiment of the invention, upon insertion of a disc into a player, the player **reads a disc identification***

***(ID) on the disc**. The player then **sends a registration request with the disc ID to a server** over the*

*Internet for **obtaining an authentication key** for playing the disc, upon proper registration of the disc by*

the server…server first determines whether the disc ID is included in its database…check whether the

disc has already been registered…if…not, the server will send back an encrypted authentication key to

the player to enable it to play the disc… set a registration status associated with the disc to prevent any

*subsequent unauthorized registrations for the same disc... If… not included in the **server database** or the*

disc has already been registered, the server will send back a failed registration code to the player that will

then reject the disc"] including a correspondence between the BCA code of the optical disc recording said

BCA code and the secret code [see **Web Server 30** in FIG.1 & **Authentication Key included 132** in

FIG.3].

Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of

Applicants' invention, to combine the teachings of Mochizuki and Wei because both are in the fields of

protecting unauthorized reproduction of optical discs. Modifying the system of Mochizuki by incorporating

the database of Wei implements a disc registration mechanism, which would in turn ensure that

unauthorized copying of discs is eliminated [see abstract and par.0005 of **Wei**].

As per Claim 3, Mochizuki teaches,

An illegal copy finding method of finding an illegal copy of an optical disc on which data and a

BCA code are recorded, comprising: a recording step [see **REPRODUCTION APPARATUS 104** in FIG.3]

of recording on the optical disc [see **OPTICAL DISC 100** in FIG.3] the BCA code constituted by a plurality

of marks [see **READ OUT disc ID S1** in FIG.4] and including a secret code [see **Write Cipher Key on**

disc S42 in FIG.7] which is modulated in accordance with a previously determined procedure in a range

capable of recognizing a position in a radial direction of the optical disc and/or a position in a track

direction of said plurality of marks as the BCA code [see for example, col.5, line 55 to col.6, line 26; and

a comparing step of reading the BCA code and the secret code recorded on the optical disc so as to compare both on the basis of an input of the correspondence between the BCA code and the secret code stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22. See also col.11, line 46 to col.12, line 35].

Mochizuki fails to teach a storing step of storing a history including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code in a BCA history database a storing step of storing a history.

However, Wei teaches a storing step of storing a history [see **Read the disc ID 102** & **Search for the disc ID 106** in FIG.3; and for example, par.0005 including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code in a BCA history database a storing step of storing a history [see **Web Server 30** in FIG.1 & **Authentication Key included 132** in FIG.3].

Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of Applicants' invention, to modify the system of Mochizuki by incorporating the database of Wei to implement a disc registration mechanism that would in turn ensure that unauthorized copying of discs is eliminated [see abstract and par.0005 of **Wei**].

As per Claim 10, Mochizuki teaches,

An illegal copy finding system finding an illegal copy of an optical disc on which data and a BCA code are recorded, comprising: a recording apparatus [see **REPRODUCTION APPARATUS 104** in FIG.3] recording on the optical disc [see **OPTICAL DISC 100** in FIG.3] the BCA code constituted by a plurality of marks [see **READ OUT disc ID S1** in FIG.4] and including a secret code [see **Write Cipher Key on disc S42** in FIG.7] which is modulated in accordance with a previously determined procedure in a range capable of recognizing a length in a radial direction of the optical disc and/or a width in a track direction of said plurality of marks as the BCA code [see for example, col.5, line 55 to col.6, line 26]; and

a management center [see **Software House 110** in FIG.3] reading the BCA code and the secret code recorded on the optical disc [see **Read out disc ID S31/S51** in Fig.6/8] so as to compare both on

the basis of an input of the correspondence between the BCA code and the secret code stored in said

BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22. See also

col.11, line 46 to col.12, line 35].

Mochizuki fails to teach a BCA history database storing a history including a correspondence

between the BCA code of the optical disc recording said BCA code and the secret code.

However, Wei teaches a BCA history database storing a history including a correspondence

between the BCA code of the optical disc recording said BCA code and the secret code [see **Web Server

30** in FIG.1, **Read the disc ID 102** & **Search for the disc ID 106** & **Authentication Key included 132** in

FIG.3; abstract, and for example, par.0005].

Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of

Applicants' invention, to modify the system of Mochizuki by incorporating the database of Wei to

implement a disc registration mechanism that would in turn ensure that unauthorized copying of discs is

eliminated [see **abstract** of Wei].

As per Claim 11, Mochizuki teaches,

An illegal copy finding method of finding an illegal copy of an optical disc on which data and a

BCA code are recorded, comprising: a recording step of recording [see REPRODUCTION APPARATUS

104 in FIG.3] on the optical disc [see **OPTICAL DISC 100** in FIG.3] the BCA code constituted by a

plurality of marks [see **READ OUT disc ID S1** in FIG.4] and including a secret code [see **Write Cipher

Key on disc S42** in FIG.7] which is modulated in accordance with a previously determined procedure in a

range capable of recognizing a length in a radial direction of the optical disc and/or a width in a track

direction of said plurality of marks as the BCA code [see for example, col.5, line 55 to col.6, line 26]; and

a comparing step of reading the BCA code and the secret code recorded on the optical disc so as

to compare on the basis of an input of the correspondence between the BCA code and the secret code

stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines

3-22. See also col.11, line 46 to col.12, line 35].

Mochizuki fails to teach a storing step of storing a history including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code in a BCA history database.

However, Wei teaches a storing step of storing a history including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code in a BCA history database [see **Web Server 30** in FIG.1, **Read the disc ID 102** & **Search for the disc ID 106** & **Authentication Key included 132** in FIG.3; abstract, and for example, par.0005].

Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of Applicants' invention, to modify the system of Mochizuki by incorporating the database of Wei to implement a disc registration mechanism that would in turn ensure that unauthorized copying of discs is eliminated [see **abstract** of Wei].

As per Claims 6 and 14, Mochizuki-Wei combination teaches,

wherein said recording apparatus comprises: an optical head irradiating a laser spot light on the optical disc; a BCA code memory for forming the BCA code constituted by a plurality of marks in the track direction by said laser spot light [see for example, col.5, line 65 to col.6, line 26 of **Mochizuki**]; and

a secret code memory [see **memory 104a** in FIG.3 of **Mochizuki**] storing a secret code modulated in accordance with a previously determined procedure in a range capable of recognizing positions in the radial direction of the optical disc and/or positions in the track direction of a plurality of marks forming the BCA code as the BCA code, with respect to the BCA code stored in said BCA code memory [see and **Flash Memory 22** in FIG.2; and for example, par.0017, "*FIG. 2 is a simplified …Player 20 includes a* **flash memory 22, which stores encrypted private data of the player including disc IDs and their associated authentication keys,** *and a codec 26, which decodes the encrypted private data. When disc 10 is played for the first ..authentication key is decoded by codec 26 to enable the player to play disc 10…disc ID will be searched by the player from flash memory 22 to find the associated authentication key…*"of **Wei**]; and

a microprocessor [*Mochizuki and Wei disclose inherent microprocessor*] controlling the BCA code and the secret code with respect to said optical head output control portion, and wherein said microprocessor constitutes an optical disc manufacturing apparatus or a BCA code recording apparatus [see **104** in FIG.3 of **Mochizuki** and **Disc Player 20** in FIG.1 of **Wei**] which records the BCA code including the secret code on the optical disc surface by modulating the BCA code by using the secret code stored in said secret code memory while moving an optical head in the radial direction of the optical disc [see FIG.7 & 9 of **Mochizuki;** and for example, col.10, lines 3-23, "*FIG. 7 shows a process of writing a cipher key which is transmitted from the software house 110 on the optical disc 100 in the reproduction apparatus 104… the cipher key is written in a predetermined area of the optical disc 100 (step S42). …add-on writing area of BCA area is a part of BCA area wherein a disc ID is recorded as a BCA number and the add-on writing area is continued to or adjoined to the area wherein a BCA number is recorded. An add-on writing area of a bar code which is continued in a circumference direction to a recording area of a disc ID in a BCA area, is provided as a continuous area. An add-on writing area of a bar code which is adjoined in a radius direction of the disc, is also provided as an adjoined area*"].

As per Claim 18, Mochizuki-Wei combination teaches,

wherein said recording Step includes a step of recording the BCA code including the secret code on the optical disc surface by modulating the BCA code by using the secret code stored in said secret code memory while moving the optical head in the radial direction of the optical disc [see FIG.7 & 9 of **Mochizuki;** and for example, col.10, lines 3-23].

As per Claims 21-23, Mochizuki-Wei teaches,

wherein the marks of said BCA code are constituted by a plurality of bars extending in the radial direction of the optical disc, a width of said bar, a position of said bar in the radial direction of the optical disc, a distance between an innermost peripheral end side and an outermost peripheral end side on the basis of a rotation center of the optical disc [see FIG.3; and for example, col.5, line 65 to col.6, line 26 of **Mochizuki**], a distance between centers of said bar in the disc track direction, and a distance between

bar starting ends are standardized, and the secret code is included in the BCA code by changing said bar

recording position within said plurality of standards [see FIG.7; and for example, col.10, lines 3-23. See

also FIG.9; and for example, col.11, lines 46-53, "*In the above mentioned aspect, it is explained that a*

*produced **cipher key is written in an add-on writing area of BCA area**, that is, the cipher key is written*

*in an area which is continued to or adjoined to a recording area of a disc ID. However, **it is possible to***

***record a cipher key in a area further innermost area of an optical recording area**, that is, in a*

magnetic recording area which is provided in a labeling part of an optical disc by means of magnetic

recording" of **Mochizuki**].

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(See PTO-892).

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Amare Tabor whose telephone number is (571) 270-3155. The examiner can normally be

reached on Mon-Fri 7:30a.m. to 5:00p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where

this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative

or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

Amare Tabor
(AU 2139)

/Kristine Kincaid/
Supervisory Patent Examiner, Art Unit 2139